MOTOROLA
Communications Parts Division

RLN-4008B
RADIO INTERFACE BOX

The "RIB" allows interfacing between a radio and either the IBM PC, IBM AT, or Epson HX20 computers by changing RS232 levels to TTL levels. The "RIB" may be powered either by an optional internal 9 volt battery (60-82728J01) or by an optional 110 volt wall adapter (01-80357A57). For international use, a 198-242 volt 50 Hz adapter (General European Plug) is also available (01-80358A56). Below is a list of cables needed for particular radios and type of computer.

RIB to Radio Model
25 Pin Connector (P2)

HT600	RTK-4205A
MOSTAR SMARTNET	30-80367B90
MSF 5000 DIGITAL	01-80355A30
RADIUS (P10)	01-80358A62
RADIUS (P100)	RTK-4208B
SABER	RTK-4203A
SPECTRA 900	30-80369B73
STX	01-80357A54
SYNTOR X9000	01-80353A75

RIB to Computer
15 Pin Connector (P4)

IBM PC	30-80369B71
IBM AT	30-80369B72
Epson HX20	01-80357A45

Note

Leaving the Radio Interface Box turned on and connected to an unpowered radio will shorten battery life.

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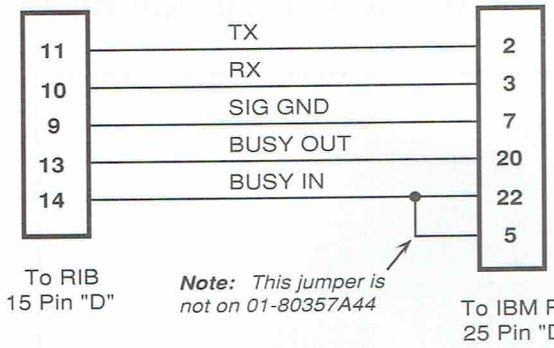
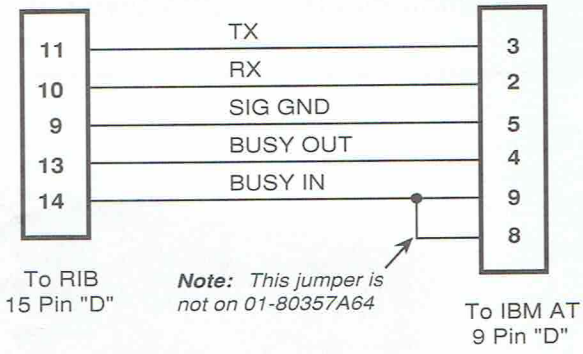
68P80309C92-O
5-24-89 MG

CABLE SCHEMATICS

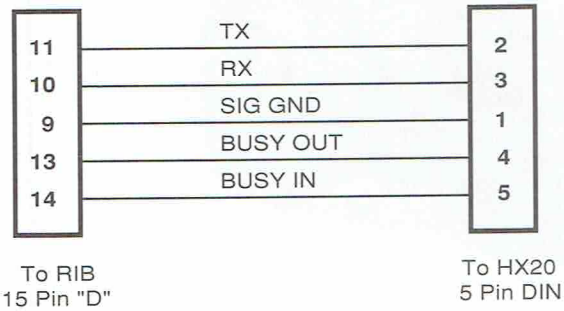
30-80369B71 COMPUTER INTERFACE CABLE
(Later Version) From "RIB" to "IBM PC"



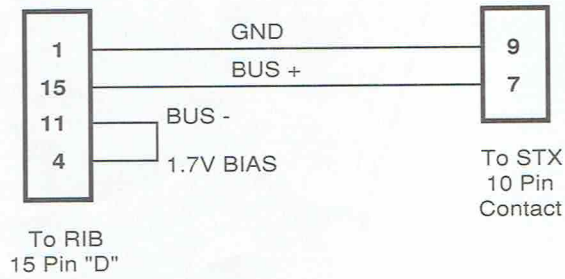
30-80369B72 COMPUTER INTERFACE CABLE
(Later Version) From "RIB" to "IBM AT"



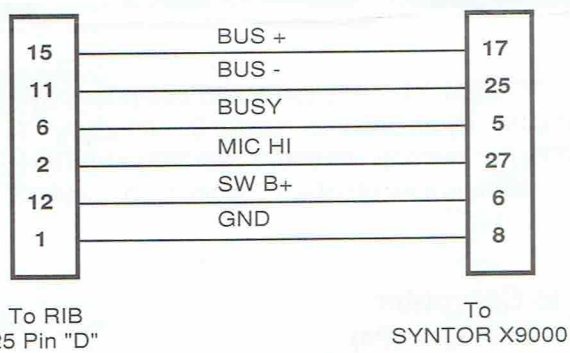
01-80357A45 COMPUTER INTERFACE CABLE
From "RIB" to "HX20"



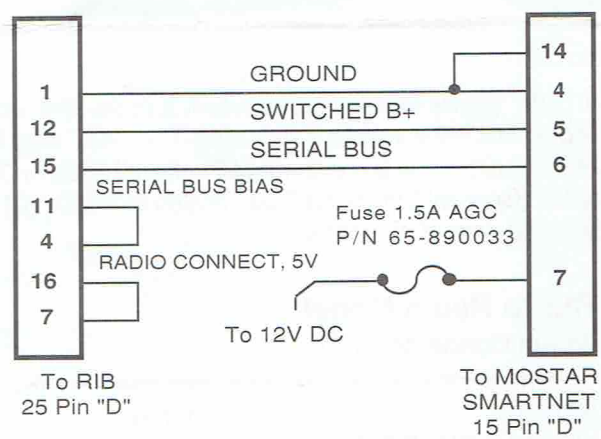
01-80357A54 RADIO INTERFACE CABLE
From "RIB" to "STX"



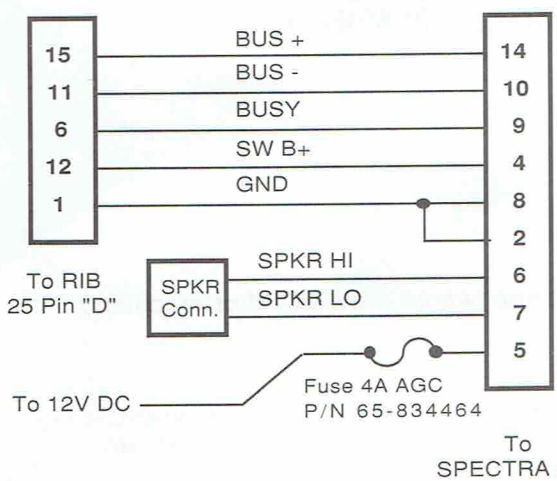
01-80353A75 RADIO INTERFACE CABLE
From "RIB" to "SYNTOR X9000"



30-80367B90 RADIO INTERFACE CABLE
From "RIB" to "MOSTAR SMARTNET"



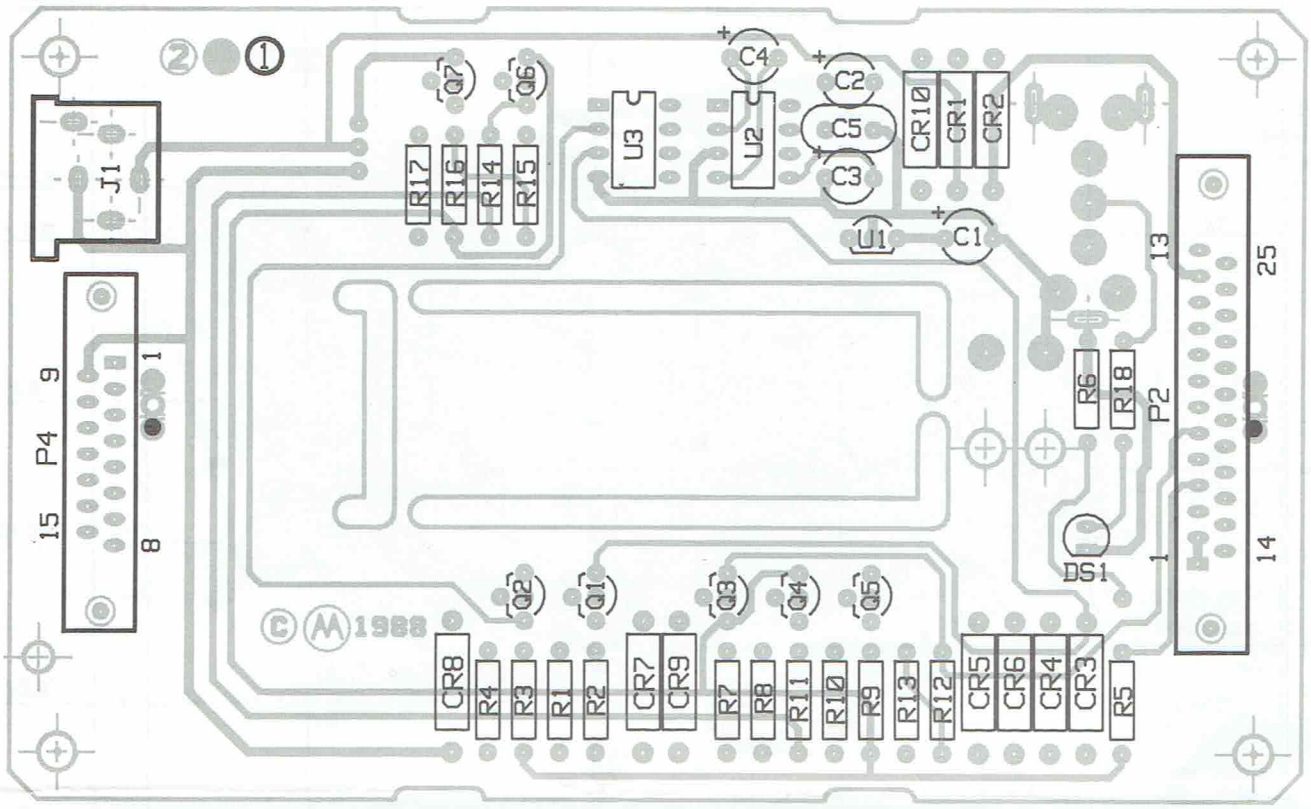
30-80369B73 RADIO INTERFACE CABLE
From "RIB" to "SPECTRA 900"



The schematics for the following cables may be found in their respective manuals:

HT600	RTK-4205A
MSF5000 DIGITAL	01-80355A30
RADIUS (P10)	01-80358A62
RADIUS (P100)	RTK-4208B
SABER	RTK-4203A

CIRCUIT BOARD COMPONENT LAYOUT DIAGRAM



REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
		CAPACITOR:
C1, C3, C4	23-11019A20	Electrolytic; 10 µF; 25 V
C2	23-11019A09	Electrolytic; 1 µF; 50 V
C5	21-11015B05	Disc; 220 pF; X5F
		DIODE:
CR1, CR2, CR7 CR8, CR9, CR10	48-83654H01	Silicon; Signal
CR3, CR4, CR5 CR6	48-05189E02	Zener; 7.5 V; 1/2 W
		DISPLAY:
DS1	48-80379B06	LED, Red Low Current
		JACK:
J1	09-80378B40	Receptacle, Power
		PLUG:
P2	28-80378B89	Connector, 25 Pos "D"
P4	28-80378B88	Connector, 15 Pos "D"
		TRANSISTOR:
Q1,Q2,Q3,Q5,Q7	48-00869648	NPN; M9648
Q4, Q6	48-00869649	PNP; M9649
		RESISTOR: FCF
R1, R3, R7, R9, R10, R12, R13, R15, R16, R17	06-11009A65	4.7K; 5%; 1/4 W
	06-11009A65	4.7K; 5%; 1/4 W
R2, R8	06-11009A80	20K; 5%; 1/4 W
R5	06-11009A60	3.0K; 5%; 1/4 W
R6	06-11009A53	1.5K; 5%; 1/4 W
R11, R14	06-11009A56	2.0K; 5%; 1/4 W
R18	06-11009A63	3.9K; 5%; 1/4 W
		SWITCH:
S1	40-80378B39	Rocker *(RLN4008A only)*
	40-80382B11	Rocker *(RLN4008B only)*
		IC:
U1	51-84621K01	78L05 Voltage Regulator
U2	51-83629M53	ICL7660 Inverter
U3	51-80345A01	CA3140E

NONREFERENCED ITEMS

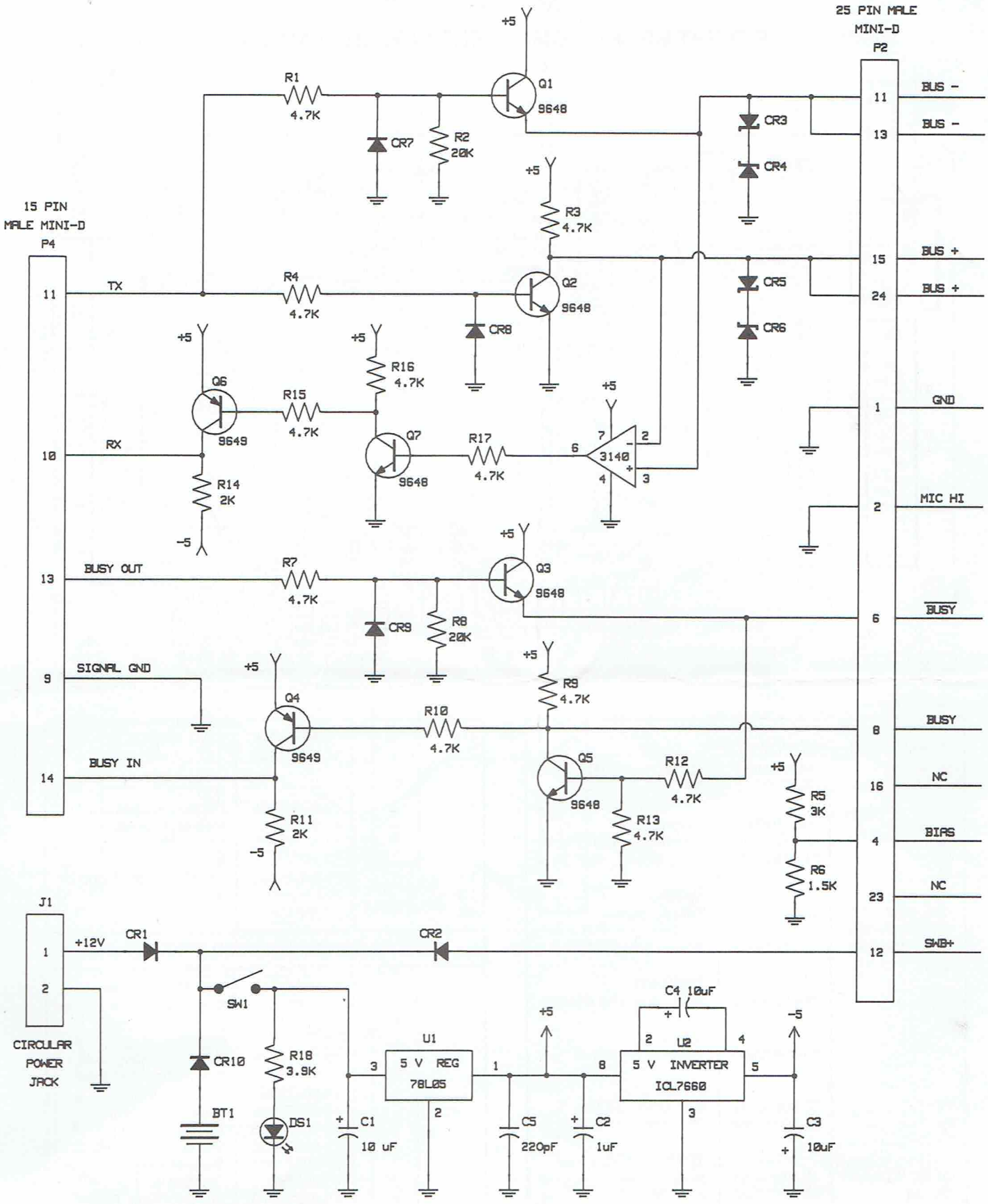
02-80347B83	Nut, M3 x .5; 4per
03-10907C23	Screw, M3 x .5 x 10; 4per

RLN4008A version only

03-00140375	Screw, Tapping 4-40 x 7/8 Phillips Pan; 4per
15-80378B41	Housing, Top
15-80378B42	Housing, Bottom
15-80378B86	Housing, Battery
26-80379B38	Shield, Power Switch
32-80379B07	Seal, Dust
43-80378B93	Standoff
75-84215A03	Bumper, Foot; Rubber

RLN4008B version only

03-10945A14	Screw, Tapping P3.12 x 1.27 x 16 Star Pan; 4per
09-80382B42	Connector, Battery
15-80380B40	Housing
42-80382B43	Retainer, Battery
64-80382B12	Cover, Battery Comp.



RADIO INTERFACE BOARD SCHEMATIC